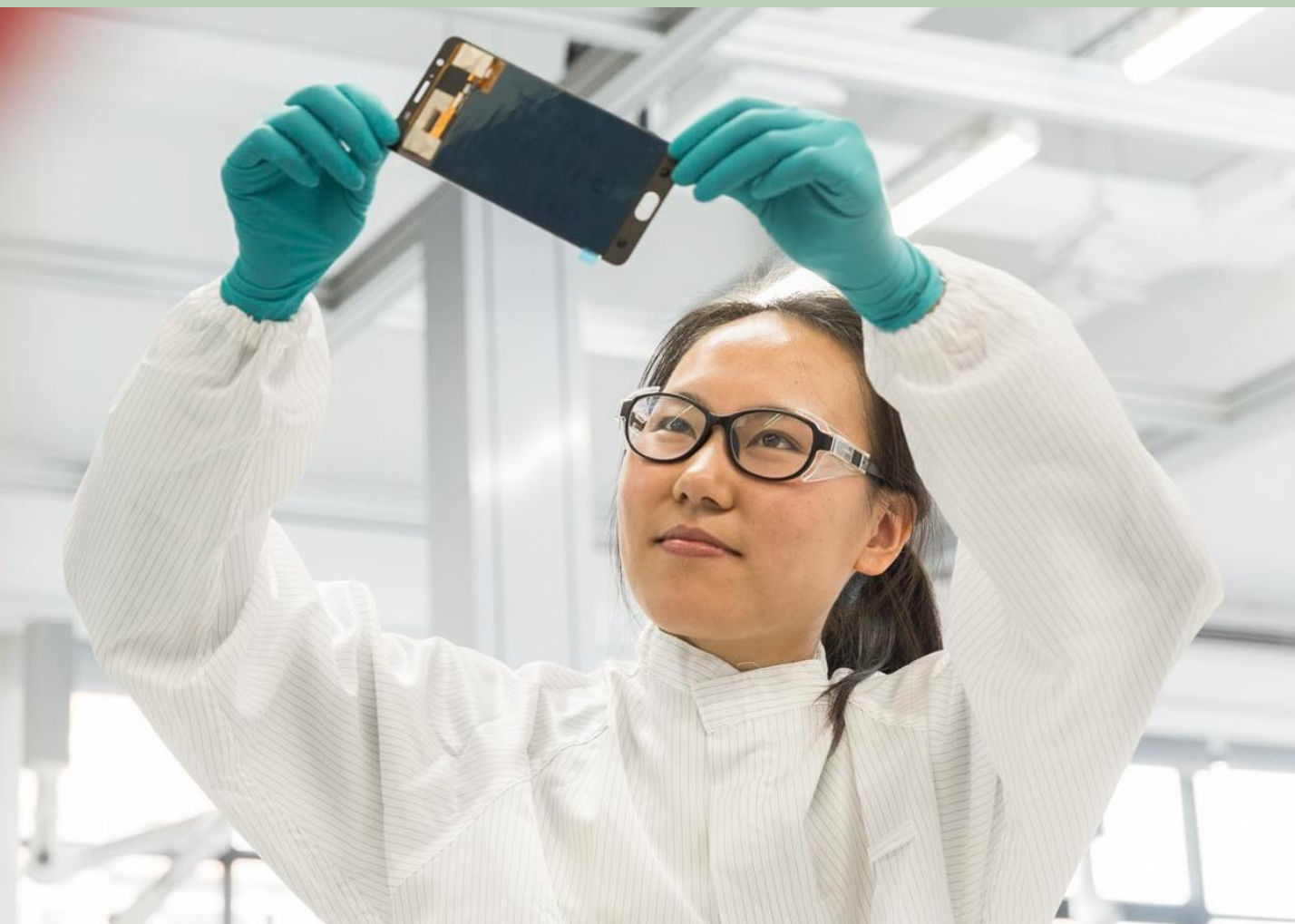


CARBON IS NOT THE PROBLEM ITS SOURCE IS



*HOW THE CHEMICAL
INDUSTRY CAN MAKE
A DIFFERENCE BY
**LEADING THE
TRANSITION TO
RENEWABLE CARBON***

Henkel

CONTENTS

FOREWORD

EXECUTIVE SUMMARY

CONTEXT AND CHALLENGE

THE PATH

ROADBLOCKS & SOLUTIONS

MOVING FORWARD

CALL TO ACTION



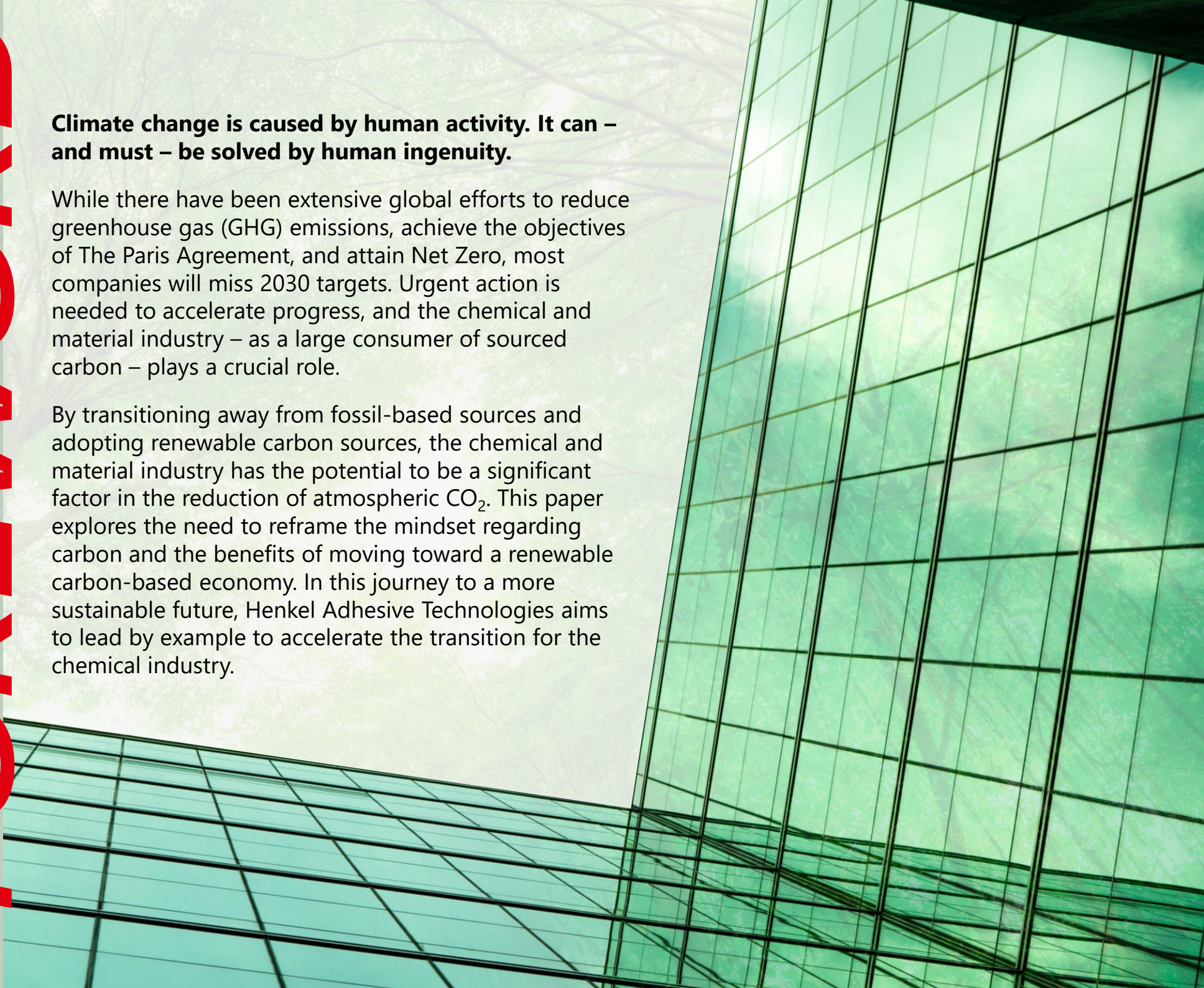


FORREWORD

Climate change is caused by human activity. It can – and must – be solved by human ingenuity.

While there have been extensive global efforts to reduce greenhouse gas (GHG) emissions, achieve the objectives of The Paris Agreement, and attain Net Zero, most companies will miss 2030 targets. Urgent action is needed to accelerate progress, and the chemical and material industry – as a large consumer of sourced carbon – plays a crucial role.

By transitioning away from fossil-based sources and adopting renewable carbon sources, the chemical and material industry has the potential to be a significant factor in the reduction of atmospheric CO₂. This paper explores the need to reframe the mindset regarding carbon and the benefits of moving toward a renewable carbon-based economy. In this journey to a more sustainable future, Henkel Adhesive Technologies aims to lead by example to accelerate the transition for the chemical industry.



EXECUTIVE SUMMARY

BACKGROUND AND RATIONALE

Carbon-containing emissions are the main cause of climate change and result from extraction and use of fossil fuels such as coal, crude oil, and natural gas from the ground. Despite massive efforts to reduce GHG emissions, the world is deviating from The Paris Agreement's target to halve emissions by 2030 and limit global warming to 1.5°C above pre-industrial levels.

A NEW PARADIGM: DECARBONISATION OR DEFOSSILISATION?

Decarbonising the economy solely through increased use of renewable energy sources like solar, wind, and hydropower is insufficient. Given carbon's vital role in living organisms, modern materials, and products, achieving holistic decarbonisation is not feasible. Instead, the goal should be to transition away from fossil-based carbon and focus on the *defossilisation* of carbon embedded in materials.

THE PATH: RENEWABLE CARBON

The path forward involves moving from a fossil-based to a renewable carbon-based economy. This necessitates the widespread adoption of all three primary sources of renewable carbon - biomass, CO₂ capture, and recycling. The journey ahead is undoubtedly challenging, and overcoming various roadblocks - whether regulatory, economic, or technological – is essential.

IMMEDIATE ACTION IS REQUIRED

Emphasizing the urgency of action, Henkel Adhesive Technologies is taking the lead by championing the shift to a circular carbon economy through advocacy, partnership, and substantial R&D investments. The company is innovating in the present, while preparing the future of chemicals in a renewable carbon-based economy.



THE CONTEXT:

CLIMATE CHANGE IS CAUSED BY EXTRACTION AND USE OF FOSSIL CARBON

The urgency of the climate crisis is intensifying, marked by escalating global warming, increased GHG emissions, and widespread deforestation. These factors are contributing to food insecurity, global health risks, and the loss of biodiversity.

We know CO₂ emissions are the main cause of climate change

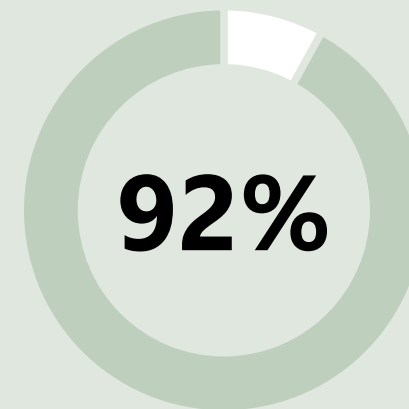
CO₂ from fossil carbon is released into the atmosphere, contributing to global warming. These facts are well understood, but the goalposts are looming, carbon use is increasing, and even with all that's been achieved, targets are being missed.

And result from fossil fuel extracted from the ground

Every year, CO₂ emissions from the combustion of fossil fuels reach approximately 36.8 billion tons (Gt) globally. Coal contributes around 42%, crude oil accounts for about 30%, and natural gas constitutes approximately 20% of these emissions.²

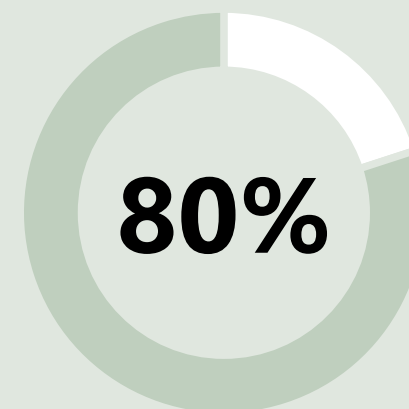
¹ Nova Institute report: Turning off the Tap for Fossil Carbon (page 8) (based on based on IPCC (2014) and Olivier et al. (2017))

² International Energy Agency (IEA), 2022 report



of global warming impacts are caused by carbon-containing greenhouse gas emissions¹

OUT OF THIS...

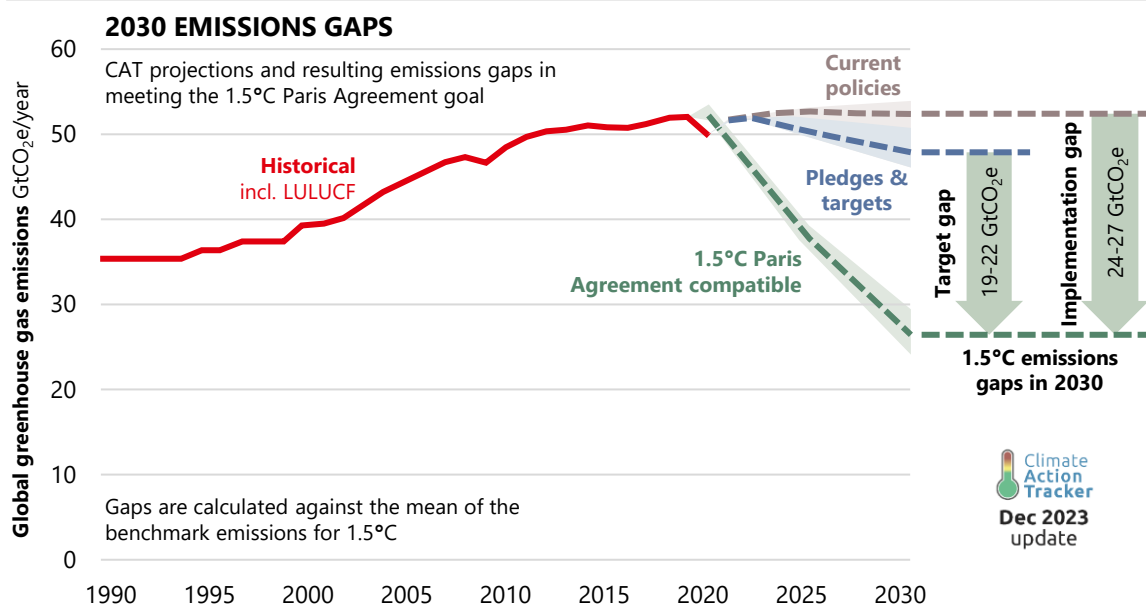


comes from fossil carbon sources, such as coal, crude oil and natural gas, extracted from below the ground¹

CORPORATES ARE DRASTICALLY OFF TRACK FROM THE PARIS AGREEMENT TARGET

The massive efforts to reduce CO₂ emissions through electric vehicle use and the adoption of renewable energy technologies is not moving the needle fast enough. According to the United Nations, to limit global warming to 1.5°C above pre-industrial levels and meet The Paris Agreement commitments, emissions must be halved by 2030. Unfortunately, unless an accelerated pace of emission reduction is adopted, almost all (93%) of the corporations that committed to Net Zero will miss their stated goals.²

THE WORLD IS GENERALLY OFF-TRACK...



As of December 2023, a noticeable gap still exist between the 2030 emission levels in UN Nationally Determined Contributions (NDCs) and current government actions, falling short of The Paris Agreement temperature targets.¹

AND CORPORATES ARE FALLING SHORT OF TARGETS



of the corporations committed to Net Zero will miss their stated goals²

Unless an accelerated pace of emission reduction is adopted

¹ Climate Action Tracker (December 2023 update)

² Accenture report (November 2022) - Nearly All Companies Will Miss Net Zero Goals Without At Least Doubling Rate of Carbon Emissions Reductions by 2030



A PARADIGM SHIFT: MOVING FROM DECARBONISATION TOWARD DEFOSSILISATION

While decarbonisation has become part of the climate change lexicon, the term may not be entirely accurate. Decarbonisation has conventionally and rightly been applied to the energy sector, where the objective is to reduce or eliminate the use of fossil-based fuel consumed for energy generation purposes.

However, decarbonisation is not enough...

Carbon is the essential building block of every living organism and is the foundation for all organic chemistry. Modern life and the products we rely on – from clothing to personal care items to electronics and automobiles – are carbon-containing.

More importantly, the need for embedded carbon is expected to dramatically increase over the next 30 years from 2020's 550 Mt of carbon to 1,150 Mt per year by 2050¹.

While reducing CO₂ emissions is a crucial component of moving toward Net Zero and attaining stated global warming limits, eliminating all carbon is not practical or feasible.

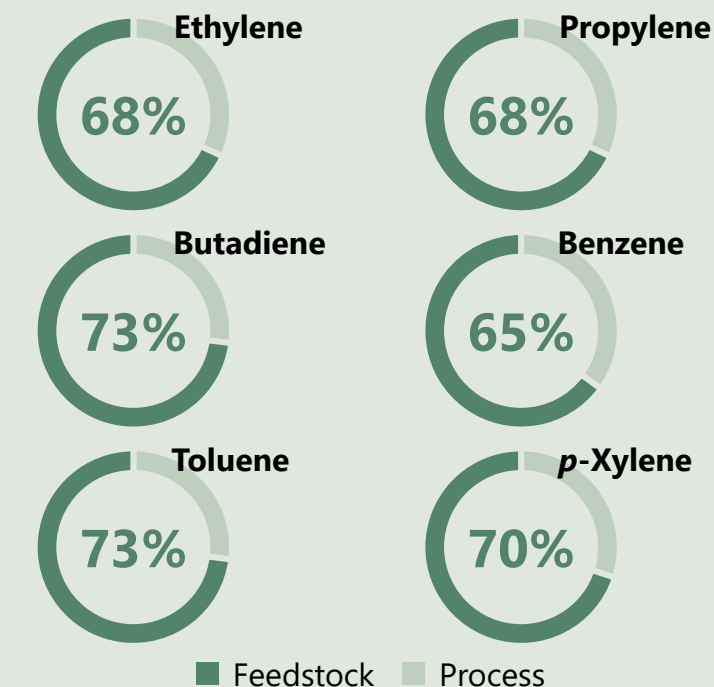


In other words, carbon-based fuels (process emissions) can be replaced by other forms of energy, but carbon-based chemicals (embedded carbon) and materials cannot.

¹ RCI report - Renewable Carbon as a Guiding Principle for Sustainable Carbon Cycles (September 2023)

² All figures available at www.renewable-carbon.eu/graphics

THE INVISIBLE CARBON FOOTPRINT²



Feedstock emissions vs. Process emissions

Feedstock emissions occur when the embedded carbon in materials is released as CO₂ emissions at materials' end of life, either in landfills or during incineration.

Process emissions result from the transformation of raw materials (e.g., polymerization), which releases greenhouse gases, including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).



THE PATH: RENEWABLE CARBON IS THE SOLUTION...

New levers need to be activated if global climate objectives are to be realized. The chemical industry, which today uses approximately 15% of sourced carbon¹, may play a central role in delivering substantive progress by transitioning from fossil-based to renewable carbon sources.

¹ Turning off the Tap for Fossil Carbon - Future Prospects for a Global Chemical and Derived Material Sector Based on Renewable Carbon (Author: Renewable Carbon Initiative) Renewable Carbon Initiation website - Definition

WHAT IS RENEWABLE CARBON?

All sources of carbon that avoid or replace the use of additional carbon from the geosphere (below the ground) are classified as renewable carbon. These sources include carbon from the biosphere, atmosphere, or technosphere, between which renewable carbon circulates.

BIOSPHERE

BIOMASS



Organic material (i.e., plants, crops) that has absorbed carbon from the atmosphere used as feedstock for raw materials.

**RENEWABLE THROUGH
REGROWTH**

ATMOSPHERE

CO₂ CAPTURE



Carbon that can be directly obtained from the atmosphere or extracted from exhaust.

**RENEWABLE THROUGH
RECAPTURE**

TECHNOSPHERE

RECYCLING



Reusing or recycling of any organic waste stream (e.g., household waste, plastic waste, old tyres and more), keeping carbon within technical cycles.

**RENEWABLE THROUGH
RECYCLING**



*Decarbonising embedded carbon is impossible, as organic materials are made of carbon. Because the elimination of carbon is unrealistic, **evolving from a fossil-based approach to a renewable carbon economy is the way forward.***

...TO BUILD A TRULY CIRCULAR CARBON ECONOMY

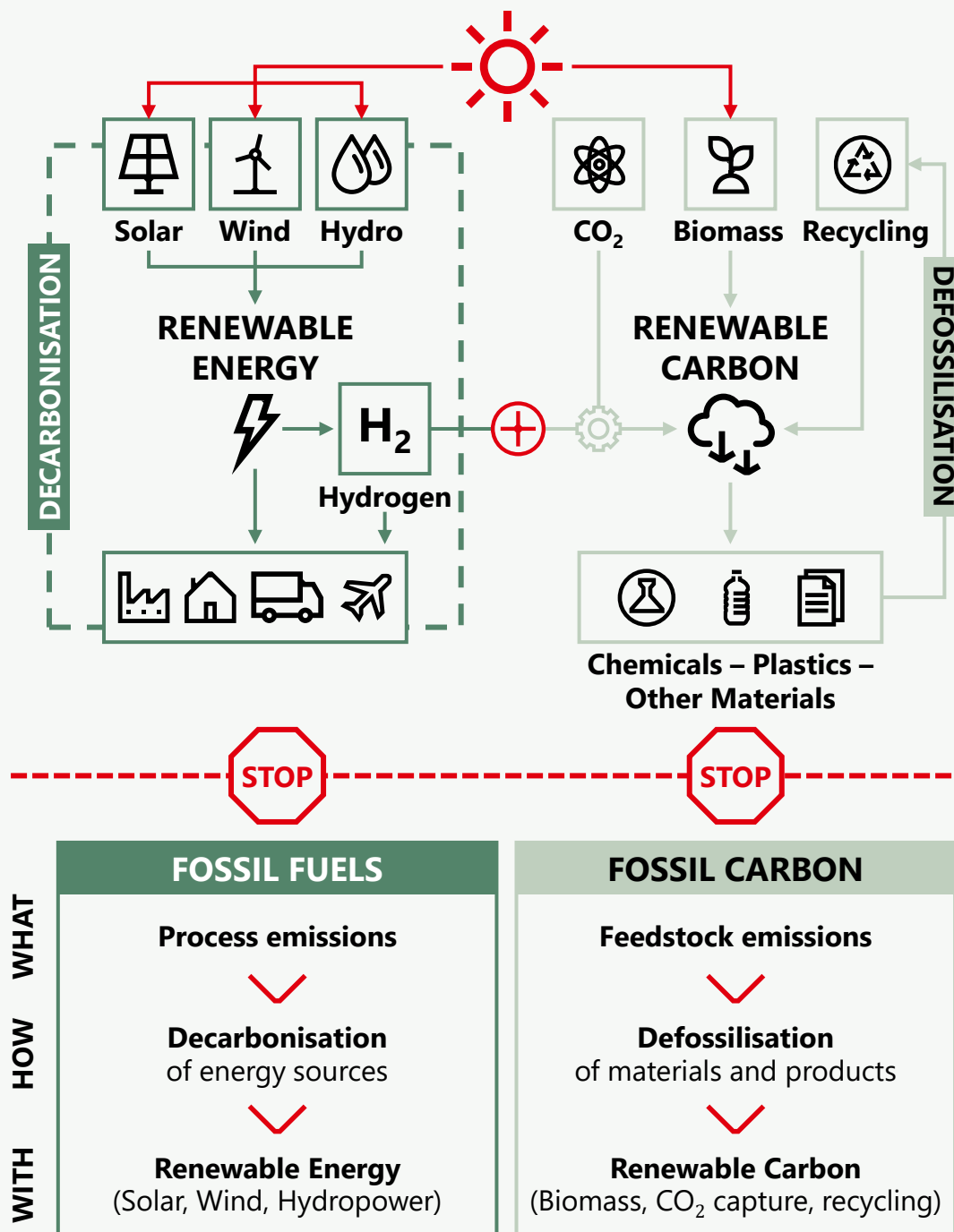
Achieving Net Zero targets will require more than just decarbonisation of energy sources. A pivot to a truly circular carbon economy, leveraging all sources of renewable carbon to enable defossilisation of embedded carbon in materials, is needed.

NET ZERO: A NEW EQUATION

Decarbonisation aims to replace fossil carbon-containing fuels with renewable energy sources like solar, wind, or hydropower, **addressing process emissions** resulting from the energy consumed to transform materials.



Defossilisation aims to transition from fossil carbon to renewable carbon sources, such as CO₂ capture, biomass, and recycling, **tackling feedstock emissions** resulting from the **release of embedded carbon in products and materials at the end-of-life** (e.g., landfilling, decomposition, incineration). **Feedstock emissions often represent the largest share of carbon containing products and materials.**



Infographic adapted from RCI position paper *Renewable Carbon as a Guiding Principle for Sustainable Carbon Cycles* – September 2023



THE TIME TO ACT IS NOW,
AND HENKEL IS
TAKING THE
LEAD BY
CHAMPIONING
THE SHIFT TO A
CIRCULAR
CARBON
ECONOMY. THE
PATH WILL UNDOUBTEDLY
BE DIFFICULT, BUT THE
OUTCOMES ARE
IMPERATIVE.





MOVING FORWARD, THESE ROADBLOCKS MUST BE SOLVED

- 1** Close the Transparency, Accounting and Policy Gaps for Better Incentivization of Renewable Carbon
- 2** Improve Availability and Affordability of Renewable Carbon-based Materials
- 3** Address Responsible Sourcing Prejudice: Green is Not Always Sustainable, but Fossil Never is

1 CLOSE THE TRANSPARENCY, ACCOUNTING AND POLICY GAPS FOR BETTER INCENTIVIZATION OF RENEWABLE CARBON

To enable the urgent transition to a sustainable carbon cycle and break dependance on fossil carbon, the chemical industry needs to operate in a more conducive regulatory and accounting environment. Against the background of huge subsidies for the fossil industry and the still relatively high transition costs and infrastructure investments for renewable carbon, policy makers need to create an environment that incentivizes renewable carbon over fossil carbon.



1.1

TRANSPARENT EMBEDDED CARBON TRACKING AS THE FIRST STEP TO START THE TRANSITION

What gets measured gets improved...

As an objective for the chemical industry, transparent tracking of every purchased raw material is required to properly account for fossil and renewable carbon content from biomass, recycling, or CO₂ capture (including mass balance attributed¹).

¹ Mass balance is defined further in this paper.

OUR POINT OF VIEW

Transparently tracking and quantifying carbon sources in raw materials is the critical first step to provide a baseline indicator for decarbonising and defossilising sectors reliant on carbon, like the chemical industry.

Start Small

- Start tracking renewable vs. fossil content in all new formulations
- Retrospectively assess renewable vs. fossil content in commercial portfolio formulations

Then Digitize

- Leverage digitalization to automate, scale, and achieve full transparency across raw materials use

HENKEL LEADS THE WAY

> 10% **AVERAGE RENEWABLE CARBON CONTENT**
IN ELECTRONICS PRODUCT LAUNCHES IN 2023

Henkel Adhesive Technologies' Electronics business unit has implemented a process to begin tracking renewable and fossil carbon content in all launched materials. To date, the company estimates that its electronics products launched in 2023 contain approximately 11% renewable carbon content.

Moving forward, Henkel Adhesive Technologies' Electronics business has set a target of achieving **50% renewable carbon content across all new formulation launches by 2030.**

1.2

INCENTIVISE RENEWABLE CARBON TO ENABLE A SHIFT AWAY FROM FOSSIL

Government subsidies for the fossil fuel industry are staggering, surpassing USD \$7 trillion globally (explicit and implicit)¹. As the goal is to accelerate the transition from a fossil-based to a renewable carbon-based economy, there is an urgent need to create a level playing field with streamlined carbon-related policies, regulations, and accounting practices.

¹ IMF, Blog August 2023

² Earth observatory, NASA

OUR POINT OF VIEW

Current carbon accounting standards are ineffective in promoting the adoption of renewable carbon. Specifically, Greenhouse Gas (GHG) Protocol currently does not differentiate between the use of renewable carbon and fossil carbon in many end-of-life scenarios, including common circular options like recycling or incineration with energy recovery.

The environmental footprint of fossil feedstocks lacks transparency and is often underestimated.

For example, crude oil-related methane leakages vary depending on geographies (e.g., Norway oil wells and pipelines are more effective at avoiding methane emissions compared to Russia or North Africa.)²

HENKEL LEADS THE WAY

- **Henkel is advocating for a change in the GHG protocol, including an adjustment of the accounting of CO₂ uptakes and carbon embedment in chemical products** from "net-flow" to "gross-flow" accounting and/or the introduction of "reverse cut-off" in Scope 3.12 of chemical companies.
- With this approach, **renewable carbon products will enter the lifecycle with lower emissions than fossil-based carbon products**, resulting in purchase incentivization.
- **Henkel's rationale was developed and shared publicly with the GHG Protocol.**



2 IMPROVE AVAILABILITY AND AFFORDABILITY OF RENEWABLE CARBON-BASED MATERIALS

The imperative to transition from fossil- to renewable carbon-based raw materials creates new challenges in raw material sourcing.

As bio-based and recycled markets have grown significantly in recent years, access to feedstock, biomass, and the affordability of renewable options over fossil-based sources often slow the transition.

While this is starting to change, a more deliberate focus is required to encourage the use of currently available renewable carbon sources, spur additional development, and stimulate future investment.



2.1 SCALE THE NOW



¹ Biomass content verified through C14 analysis and certified by ISCC+

OUR POINT OF VIEW

Corporates can start the journey now and leverage the existing renewable carbon-based materials toolbox.

Several renewable carbon-based materials in priority technology segments like polyurethanes, acrylates, and epoxies already exist, many of which deliver similar or superior performance to fossil-based options and are available

Leveraging those options is the logical first step to move toward a renewable carbon-based economy.

HENKEL LEADS THE WAY

Henkel pioneered the industry's first bio-based PUR hot melt adhesive for consumer electronics assembly

- With **LOCTITE HHD 3544F**, Henkel delivers its inaugural consumer electronics-specific, bio-based PUR hot melt adhesive; approximately two-thirds (66%¹) of its content is sourced from renewable, plant-based feedstocks.
- LOCTITE HHD 3544F can be used for a wide range of consumer electronics structural bonding applications in mobile phones, laptops, tablets, wearables, and accessories.

“

LOCTITE HHD 3544F serves as testament that sustainable and circular innovation can seamlessly align with delivering value in a high performance-driven industry such as consumer electronics.

PIERRE FARBOS DE LUZAN

Head of Sustainability, Electronics at Henkel

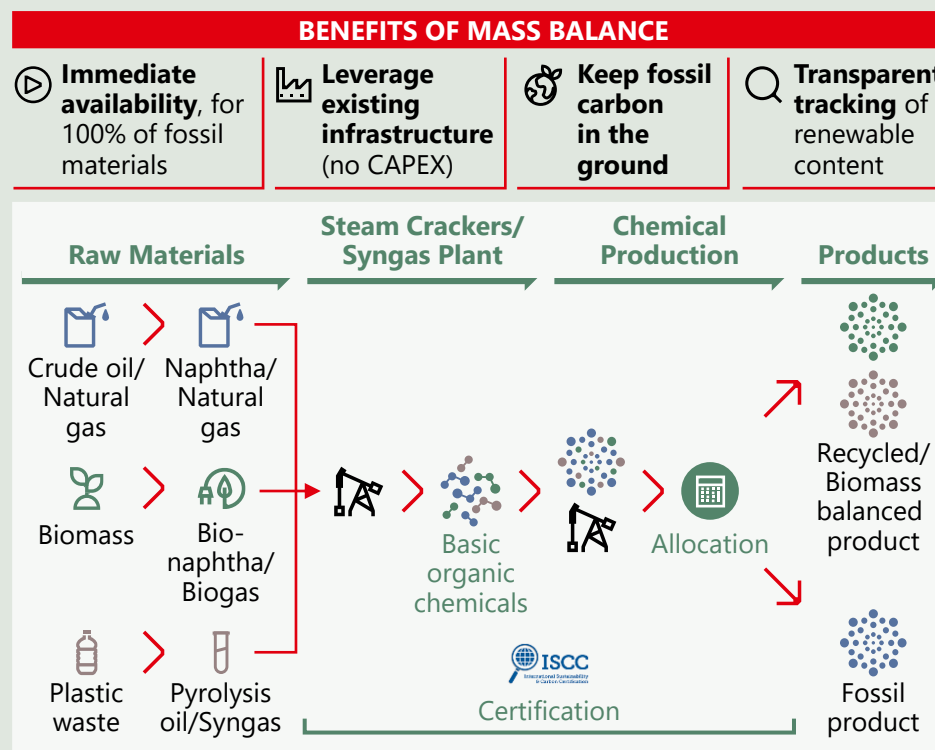
2.2

LEVERAGE MASS BALANCE TO SMOOTH THE TRANSITION

Henkel advocates for a physical transformation of the chemical industry, but one that employs gradual change using existing infrastructures. Mass balance sets higher incentives to defossilise than basic book and claim and enables an immediate transition for all existing fossil materials. Moving forward, mass balance is an essential complement to physical segregation in achieving the transition to renewable carbon.

Infographic adapted from RCI position paper
Renewable Carbon as a Guiding Principle for
Sustainable Carbon Cycles – September 2023

OUR POINT OF VIEW



Mass balance is a **chain of custody** approach which facilitates **transparent tracking of material flows through complex value chains**.

It enables the **blending of renewable and virgin feedstocks** to create a final product.

Renewable content is **transparently traced and certified** using third-party certification schemes like ISCC+.

HENKEL LEADS THE WAY

Henkel partners with Covestro to enable mass balance value for methylene-diphenyl diisocyanate (MDI), a critical raw material to formulate polyurethane hot melt adhesives used in structural bonding for electronic modules and components. Bio-attributed mass balance MDI is linked to **80% renewable carbon content** and provides a **55% CO₂ equivalent reduction over fossil-based MDI**, transparently **certified by ISCC+**.



Mass balance is the first step towards a circular economy. It is a must-do to make an impact at scale, and it is needed for all three sources of renewable carbon (Biomass, CO₂ capture, Recycling).

ADRIAN BRANDT

Head of Bio & Renewable Materials at Henkel

2.3

INVEST IN THE FUTURE

Material science generally suffers from a lack of investment. As the transition from fossil to renewable carbon materials accelerates, active innovation and dedicated research and development (R&D) efforts are critical.



OUR POINT OF VIEW

Continued Innovation is Vital

As the transition from fossil to renewable carbon materials takes shape, R&D and innovation investment needs to be integral in the strategy of chemical companies.

High Performance, Delivered by Nature

Technically, any material can come from renewable carbon sources. Moreover, bio-based materials can even outperform fossil counterparts, seamlessly marrying superior functionality with sustainable innovation.

Henkel is convinced that the same or better performance can be achieved with our renewable carbon products compared to state-of-the-art fossil products.

HENKEL LEADS THE WAY

- **Henkel Renewable Carbon Center of Excellence (COE)**
Launched in 2015, Henkel's Renewable Carbon COE has pioneered the development of **proprietary molecules such as bio-polyester**, resulting in the acquisition of **over 50+ patents in the field of renewable carbon raw materials for adhesives**.
- **Accelerate innovation with partners**
Henkel has signed an agreement with Avantium for the purchase of **100% plant-based FDCA** (furandicarboxylic acid) to launch innovative, high performance polyurethane adhesives for electronics applications.



3 ADDRESS RESPONSIBLE SOURCING PREJUDICE: GREEN IS NOT ALWAYS SUSTAINABLE, BUT FOSSIL NEVER IS

As the world will require increasing access to renewable carbon sources, new challenges arise with the sourcing and use of renewable carbon-based materials (from Biomass, CO₂ capture or Recycling).

Because *green* does not necessarily mean sustainable, certain principles are required to ensure a responsible and sustainable transition to renewable carbon.

However, the same scrutiny should apply to fossil-based raw materials to provide fair comparison and avoid counterproductive *green-hushing* or even *green-bashing*, resulting in corporations choosing the status quo of fossil-based materials over more sustainable options.



AVOID
GREEN-WASHING

STEER CLEAR OF
GREEN-BASHING

3.1

TRANSPARENT IS THE NEW GREEN

Because 'green' does not always mean sustainable, corporations are required to adopt responsible management of renewable carbon-based raw materials, which includes the conservation of natural resources and biodiversity, as well as economic, and social considerations.



¹ European Commission; Feedback from Renewable Carbon Initiative: Making a Case for Carbon Capture and Utilisation (CCU), sourced from Kaiser, S., Gold S., Bringezu, S. 2022: Environmental and economic assessment of CO₂-based value chains for a circular carbon use in consumer products, June 2022

OUR POINT OF VIEW

Robust **lifecycle assessment (LCA)** to quantify raw materials and finished goods **emission reduction**, as well as third-party **responsible sourcing** validation are imperative, **especially in regions lacking environmental and human rights standards**.

Importantly, these **requirements should apply uniformly to all feedstocks, including fossil-based materials**, to prevent hindering the transition away from them.

In this journey, **establishing a level playing field in LCA and transparency methodologies** between fossil and renewable carbon-based materials is essential for progress.

HENKEL LEADS THE WAY

Henkel invests in internal LCA capabilities to ensure granular and transparent quantification of its carbon footprint.

By using biogenic or atmospheric renewable carbon sources, it is possible to **achieve GHG emissions reduction of up to 90%** over fossil carbon¹.

For biomass, the GHG emission reduction potential is about **30% to 50%** over fossil carbon for cultivated biomass and can even be higher with biogenic waste¹.

Henkel's goal is to deliver 100% end-to-end transparency on the sustainability of its products by leveraging independent leading standards and certifications for bio-based raw materials.

3.2

FOCUS ON WHAT MATTERS: THE TRANSITION TO RENEWABLE CARBON IS POSITIVE, EVEN BEYOND CLIMATE



¹ [European Commission](#); Feedback from Renewable Carbon Initiative: Making a Case for Carbon Capture and Utilisation (CCU), sourced from Kaiser, S., Gold S., Bringezu, S. 2022:

²[The Use of Food and Feed Crops for Bio-based Materials and the Related Effects on Food Security](#) – Renewable Carbon Initiative (RCI), June 2023

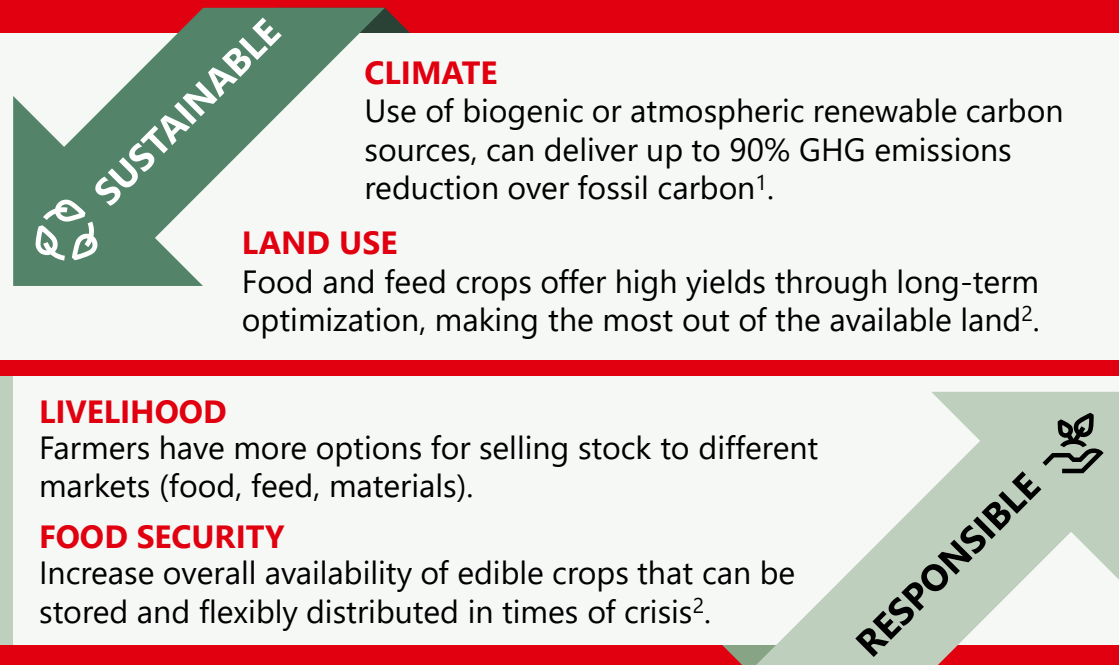
OUR POINT OF VIEW

Achieving sustainable and responsible renewable carbon sourcing **requires a multi-dimensional assessment**. The primary advantage of renewable carbon materials lies in their significant **climate benefits**, with the **potential for up to a 90% reduction in GHG emissions compared to fossil sources**¹.

Beyond climate considerations, increased use of food and feed crops for chemicals and materials production can **positively impact land use, farmers' livelihoods, and food security**.

HENKEL LEADS THE WAY

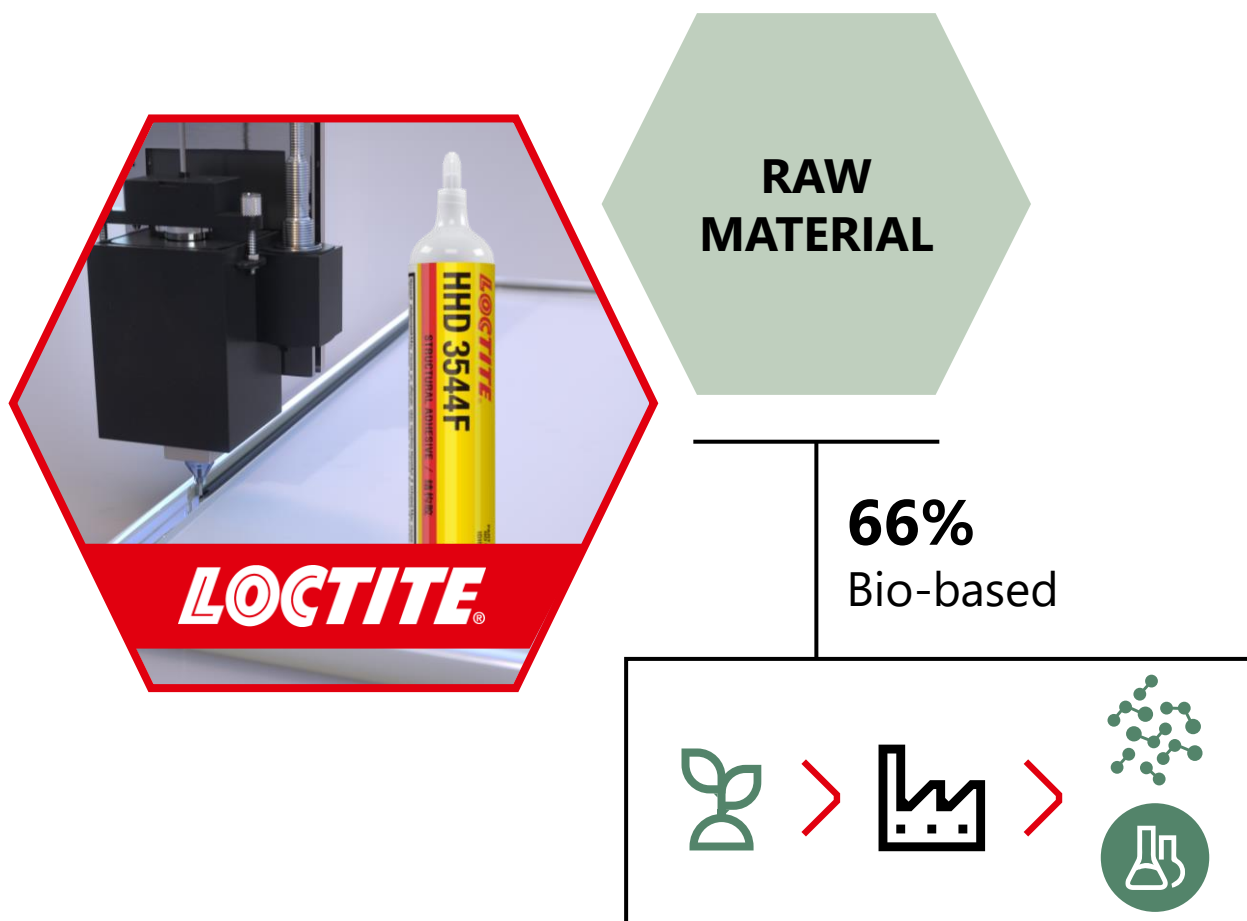
Henkel believes renewable carbon materials can address environmental concerns **AND** deliver positive socio-economic outcomes.



SUCCESS STORY:

HENKEL LAUNCHED THE INDUSTRY'S FIRST BIO-BASED PUR HOT MELT ADHESIVE FOR CONSUMER ELECTRONICS ASSEMBLY

LOCTITE HHD 3544F CONTAINS 66% RENEWABLE CARBON CONTENT (FROM BIOMASS FEEDSTOCK¹)



LOCTITE HHD 3544F can be used for a wide range of consumer electronics structural bonding applications in mobile phones, laptops, tablets, wearables, and accessories.



¹ Biomass content verified through C14 analysis and certified by ISCC+

HENKEL ADHESIVE TECHNOLOGIES' **VISION** TO ACCELERATE THE TRANSITION TO RENEWABLE CARBON



ADVOCATE FOR CHANGE

Beyond advocacy to GHG protocol for an improved accounting of renewable carbon-based materials, **Henkel generally supports faster progress and transition to a circular carbon economy.**

As a board member of the Renewable Carbon Initiative (RCI), Henkel Adhesive Technologies is exploring alignment with efforts towards potential policy instruments that could potentially facilitate and accelerate the transition towards sustainable and circular carbon cycles.



Phase out financial support, tax advantages and tax exemptions for fossil feedstocks.



Adopt a legally binding target for 20% sustainable, non-virgin-fossil carbon content in chemicals and plastics.



Develop standards, certificates, and labels for renewable carbon in products to create transparency and trust for the transition.

Renewable Carbon Initiative (RCI) 7 policy recommendations¹ also include the development of a comprehensive carbon management regulation as well as financial support directed towards the expansion of renewable energies.



¹ Renewable Carbon Initiative (RCI) 7 policy recommendations

PARTNER TO SCALE

Material science and innovation are outcomes resulting from the collaboration of **various stakeholders within long and complex value chains.**

Recognizing the interdependence in this process, **Henkel acknowledges that solving challenges requires collaboration** with like-minded partners both upstream and downstream, fostering progress collectively.

In the transition phase, **Henkel actively engages in partnerships, sharing the green price premium and distributing costs across the value chain** to ensure a cooperative, effective, and sustainable approach.

LEADING THE TRANSITION WITH OUR PARTNERS

NESTE

"Renewable solutions will play a major role in replacing fossil resources in the chemicals and polymers industry. It's a solution already available at scale. To ramp up the share of renewable carbon in this field, cooperation is key. We are glad to work with Henkel to contribute to a more sustainable industry."

MARIA CARCOLÉ

Head of Brand Owner Management,
Renewable Polymers & Chemicals



"The transition to a global circular economy is a large-scale project that can only be achieved through collaboration. In partnership with Henkel, we are paving the way for a more sustainable adhesives value chain."

DR. MATHIAS MATNER

Head of Sustainability and Advocacy,
Coatings and Adhesives



LEAD

BY EXAMPLE

We aim to lead the adhesive technologies industry in the transition to renewable carbon.

Henkel Adhesive Technologies' Electronics business has set an ambitious target of achieving 50% renewable carbon content by 2030 in all new product launches across its primary adhesive technologies (polyurethane, acrylate, and epoxy).

OUR TARGET

>50%
by 2030

Renewable carbon content in all new polyurethane, acrylate, and epoxy product launches

WHY WE ARE UNIQUE



Renewable Carbon Excellence

Expert team of chemists, delivering proprietary innovation.



Carbon Footprint Reduction

Delivered and proven through robust lifecycle assessment (LCA).



Responsible Sourcing

Bio-based materials sourced through certifications and traceable supply chain.



CALL TO ACTION: THE CHEMICAL INDUSTRY MUST LEAD IN THE TRANSITION TO RENEWABLE CARBON

As one of the largest industrial consumers of fossil-based carbon, chemical companies have a responsibility to be part of the solution and foster a transition to a circular and sustainable carbon economy.

Achieving Net Zero targets will only be achieved through an effective adoption of a circular carbon economy. Defossilisation of embedded carbon sources used in materials and products by leveraging all available renewable carbon sources (biomass, CO₂ capture, recycling) is the only path to achieve this objective.

In this journey, Henkel Adhesive Technologies leads by example by setting ambitious targets and staying true to its corporate purpose: *Pioneers at heart for the good of generations.*

TOGETHER, LET'S MAKE AN IMPACT!

Henkel invites all partners who aim to contribute, collaborate, and innovate to join us in this journey.



Adrian Brandt
Head of Bio &
Renewable Materials

Henkel



Pierre Farbos de Luzan
Head of Sustainability,
Electronics

Henkel

**Join the
Renewable
Carbon
Initiative
(RCI)**



Along with our partners and founding members



Beiersdorf



LanzaTech



NESTE



**UPM BIOFORE
BEYOND FOSSILS**



SHV ENERGY



**Cosun Beet
COMPANY**



CREDITS

Published by

Henkel AG & Co. KGaA 40191 Düsseldorf,
Germany Phone: +49 (0) 211 797-0 © 2024
Henkel AG & Co. KGaA

Editorial work and coordination

Adrian Brandt, Pierre Farbos de Luzan

Design and copywriting

Gilbert Valencia, Marilou Agnote,
Bobby Coniconde, Laura L. Sims

CONTACTS

Corporate Communications

corporatecommunications@henkel.com

Sustainability Management

sustainability@henkel.com

Our sustainability publications on the internet:

www.henkel.com/sustainability/reports

Henkel app available for iOS and Android:



Henkel in Social Media:



www.linkedin.com/company/henkel

www.twitter.com/henkel

www.facebook.com/henkel

www.instagram.com/henkel

www.youtube.com/henkel

